03050103-070

(Tinkers Creek)

General Description

Watershed 03050103-070 is located in York and Chester Counties and consists primarily of ***Tinkers Creek*** and its tributaries. The watershed occupies 17,005 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Pacolet-Cecil-Wilkes-Madison series. The erodibility of the soil (K) averages 0.28 and the slope of the terrain averages 10%, with a range of 2-40%. Land use/land cover in the watershed includes: 86.7% forested land, 8.8% agricultural land, 3.6% scrub/shrub land, 0.4% water, 0.4% urban land, and 0.1% barren land.

Tinkers Creek accepts the drainage of Rum Branch and Neelys Creek before draining into Fishing Creek. There are a total of 41.3 stream miles and 15.1 acres of lake waters in this watershed, all classified FW.

Surface Water Quality

Station #	Type	Class	Description
CW-227	S/W	FW	NEELYS CREEK AT 2-46-997
CW-234	W/INT/BIO	FW	TINKERS CREEK AT S-12-599

Neelys Creek (CW-227) - Aquatic life uses are fully supported; however, there is a significant decreasing trend in dissolved oxygen concentration. There is a significant decreasing trend in pH. Recreational uses are partially supported due to fecal coliform bacteria excursions.

Tinkers Creek (CW-234) – Aquatic life uses are not supported due to macroinvertebrate community data and turbidity excursions, compounded by a significant increasing trend in turbidity. There is a significant decreasing trend in pH. Recreational uses are partially supported due to fecal coliform bacteria excursions.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM / ***FACILITY NAME*** / ***PERMITTED FLOW @ PIPE (MGD)***	***NPDES#*** / ***TYPE*** / ***COMMENT***
NEELYS CREEK NEELYS CREEK HOMES, INC. PIPE #: 001 FLOW: .008	SC0041904 MINOR DOMESTIC
NEELYS CREEK TRIBUTARY JACK NELSON ENTERPRISES PIPE #: 001 FLOW: .012	SC0027341 MINOR DOMESTIC

Growth Potential

This watershed, which contains a portion of the Town of Leslie, is primarily rural, with scattered residential development located throughout. Water service is available but sewer service continues to be limited, thus restricting growth in the area. There is some ongoing forestry activity.

Watershed Protection and Restoration

Total Maximum Daily Loads (TMDLs)

A TMDL was developed by SCDHEC and approved by EPA for several water quality monitoring sites in the ***Fishing Creek*** watershed including CW-227 on Neelys Creek and CW-234 on Tinkers Creek to determine the maximum amount of fecal coliform bacteria they can receive from nonpoint sources and still meet water quality standards. The primary sources of fecal coliform to the sites were determined to be runoff from urban and pasture lands, failing septic systems, leaking or overflowing sanitary sewers, and livestock with uncontrolled access to streams. The TMDL states that a 69.5% reduction in fecal coliform loading from these urban and agricultural sources at the above sites is necessary for the streams to meet the recreational use standard. For more detailed information on TMDLs, please visit the SCDHEC's Bureau of Water homepage at http://www.scdhec.gov/water and click on "Watersheds and TMDLs".

Special Projects

TMDL Implementation for Fecal Coliform in the Fishing Creek Watershed, York County, SC

The Fishing Creek watershed lies in the north central quadrant of South Carolina and is designated as HUC 03050103-050, 060, and 070.The project was recently approved for funding under §319 and will get underway around the first of 2005. It will be implemented by a partnership of organizations including the York and Chester Soil and Water Conservation District, Clemson Extension Service, York County Government, USDA-NRCS, Chester and York County Cattlemen's Associations and Research Planning, Inc. Each partner will bring expertise to the project in order to implement the TMDL, which will reduce the load of fecal coliform bacteria in the watershed so that state water quality standards for this pollutant are met. Participants in the project will use local knowledge, sampling, and spatial data analysis to characterize sites in the watershed that have high fecal coliform loading. Best Management Practices and effective outreach activities will then be utilized to benefit water quality relative to cost on selected sites.

NPS Assessment and TMDL for Phosphorus in the Catawba River Basin

In June 2003, researchers at the University of South Carolina completed a §319-funded study of nutrient loading in the lower Catawba River basin using the WARMF (Watershed Analysis Risk Management Framework) water quality model. The model estimated that the lower Catawba River (defined as the Catawba River downstream of the Lake Wylie dam and all tributaries through Lake Wateree) received an average load of 2100 kg/day of phosphorus for the 1996-1998 study period. Of this load, 46% was from point sources, 39% was from nonpoint sources, and 15% was from Lake Wylie. SCDHEC is currently using the WARMF model, which is being updated through 2003, to further refine nonpoint sources, to determine loading rates that would allow the reservoirs to meet the phosphorus

standard (TMDLs), and to calculate wasteload allocations for phosphorus for the impaired reservoirs. Cooperators in the study include Catawba River stakeholders, North Carolina DWQ, and EPA Region 4.

Sustainable Environment for Quality of Life

Sustainable Environment for Quality of Life (SEQL) is a USEPA program, which addresses regional environmental planning through the Centralina Council of Governments and the Catawba Regional Council of Governments. SEQL is intended to assist local governments in the 15-county Charlotte/Gastonia/Rock Hill region to work together to promote economic growth while protecting the environment. Multiple air and water quality issues are analyzed simultaneously, while addressing transportation, water, land use, energy use, population growth and economic development. The Department has supported the program by providing air and water quality information. More information about SEQL is available at the following website: http://centralina.org/seql/background.htm